



**NEWSTAR 2/4PORT
USB1.1 KVM SWITCH
One Keyboard, Monitor, and Mouse
Control 2/4PCs**

User Manual

www.newstar.nl

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Introduction

Thank you for purchasing the NewStar USB 1.1 KVM Switch. The NS-231USB/431USB KVM Switch allows users (PCs and Macs) to control 2 (NS-231USB) or 4 (NS-431USB) USB equipped computers from a single USB console (USB keyboard, USB mouse & monitor).

Offering the flexibility of the true USB technology, this series is perfect for anyone to simplify their home or small office computer setup.

This series KVM Switch is equipped with the advanced KVM technology. Asynchronously switch between computers and multiple USB peripheral devices by using fast Hot Keys – for example, print from one USB computer while working with another! This function eliminates the hassle of having to unplug and re-plug your USB device when switching to another computer.

Designed for the latest multimedia environments, the switch supports 2 USB 2.0 hub which can allow you to sharing the USB device among computers.

Fast and easy to use, the KVM Switch provides Hot Key (for PC only) and front panel port selectors (for PC and Mac) for you to switch. Installation is simple, just plugging in your cables and there is no software required. It offers higher video resolution of 2048 x 1536 and caliber features such as firmware upgrades, hot pluggable connections, and an easy accessible high-speed USB 2.0 hub for convenience - connect more USB devices (scanners, USB 2.0 external HDDs, digital cameras etc.) faster! The NewStar KVM Switch is the most efficient solution for home or office using.

Package Contents

- ◆ NS-231USB/431USB NEWSTAR 2/4-PORT USB1.1 KVM Switch.
- ◆ NS-231USB:KVM Cable X 2 / NS-431USB:KVM Cable X 4 .
- ◆ Power Adapter DC 5V, 2.5A
- ◆ User Manual

Overview

Hot Key Function

The Hot key feature allows you to use designated key commands to switch computers and the connected USB devices.

AutoScan

The AutoScan function allows you to automatically scan and monitor all computers one by one.

Video Resolution

With a 400MHz video bandwidth, the NS-231USB/NS-431USB support video resolutions of up to 2048x1536. To preserve signal integrity at high resolutions, the 75-Ohm coaxial VGA cabling is recommended.

Front-Panel Port Selectors

Push buttons conveniently located on the front panel for simple manual port selection.

LED Display

Front panel Port LEDs allow easy status monitoring. A lit LED indicates which computer the KVM console currently has control of.

Two Level Switching

Two level switching technology allows users to switch among USB computers, USB peripheral devices, or both

Flash Upgrade

The upgrade ability allows users to obtain the updated firmware for your KVM Switch. These upgrades allow constant compatibility with the latest devices and computers.

Features

- ◆ Allow users to control 2 or 4 USB computers (PCs & Macs) and multiple USB (1.1/2.0) peripheral devices from one USB console
- ◆ Easy switching via Hot Key or front panel push buttons.
- ◆ 2 port high-speed USB 2.0 hub with "2 level Switching Technology"- asynchronously switch between USB computers and multiple USB peripheral devices by using fast Hot Key
- ◆ Supports Microsoft Intellimouse®
- ◆ LED display for easy status monitoring
- ◆ Auto Scan for monitoring computers
- ◆ Hot pluggable
- ◆ Supports high video resolution - up to 2048 x 1536
- ◆ Supports VGA, SVGA and MultiSync monitors
- ◆ Easy installation - No software required
- ◆ Compatible with Windows 95,98,2000,ME,NT,XP,Linux,Free BSD and Mac
- ◆ Optional Audio feedback when switching among ports
- ◆ Keyboard Caps Lock, Num Lock, Ctrl states auto saved
- ◆ Flash upgradeable firmware allows you to obtain the updated firmware for compatible with the latest computers

Specifications

Computer connections:

Mouse / Keyboard: USB 1.1 B type Female

Monitor: HDDB 15Pin Female

Console Connections:

Keyboard: USB 2.0 A-type Female

Mouse: USB 2.0 A-type Female

Monitor: HDDB15 pin Female

USB Devices: USB 2.0 A-type Female x 2

Port LEDs: 2/4

Hot Keys: Ctrl(default), Ctrl , Shift, or Alt

Resolution: 2048 x 1536

Dimensions(W x D x H): 130 x 135 x 45mm / 235 x 135 x 45mm

Weight: 750g / 1000g

Operating Temp: 32°F to 104°F(0~40°C)

Storage Temp: -4°F to 140°F(-20~60°C)

Humidity: 0-80% RH, non-condensing

Flash upgradeable: 8 pin mini Din

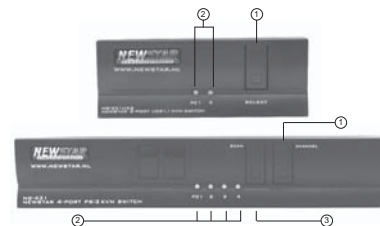
Power Supply: DC 5V, 2.5A adapter

Warranty: 3 years

NOTE: Specifications are subject to change without notice

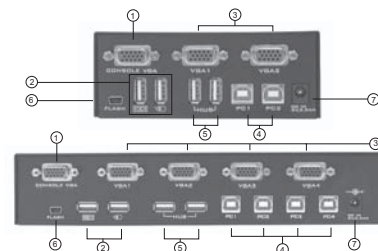
Display Diagrams

The Front Panel of the NEWSTAR NS-231USB / 431USB



1. Push Button Port Selector
Press the push button to jump among ports.
2. Port LEDs
The LED lit up to indicate the active port.
3. Auto Scan
Press for the Auto Scan Function

The Back Panel of the NEWSTAR NS-231USB / 431USB



1. Console VGA port
2. Console USB keyboard and mouse connectors.
3. Computer VGA ports
4. Computer Keyboard and Mouse combo connectors.
5. USB Device Hub.
6. Flash upgrade port (8-pin mini DIN)
7. Power Jack (DC 5V, 2.5A)

Installation

Where to Place the KVM Switch:

The NS-231USB/431USB KVM Switch is small, portable, and designed to fit right on the desktop. Before installation, please consider the following issue to decide where to place the KVM Switch:

- ◆ Do you intend to use the manual port selectors for port switching
- ◆ the length of the cables attached to your keyboard, mouse, and monitor
- ◆ the location of your computers from your console
- ◆ the length of the cables you use to connect your computers to the KVM Switch

Cable Distance Requirements:

USB signals can be transmitted up to 15 feet (4.5m) between the KVM and the computers. Beyond 15 feet (4.5m), the probability of signal degradation increase with the distance.

Cautions and Warnings:

Avoid placing cables near machines that create electrical noise such as fluorescent lighting, air conditioning equipment, etc.

Hardware Installation

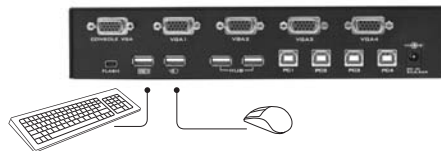
This section provides you complete instructions for the basic hardware setup of a single NS-231USB/431USB.

Important Note:

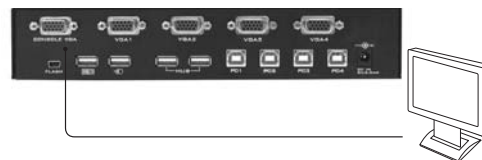
Before you begin, Please be sure to power off all the equipment you want to connect to the switch.

Connecting Console

- 1.Power off all computers.
- 2.Connect your USB keyboard and mouse directly into the USB keyboard and mouse ports on the back panel of your KVM Switch.

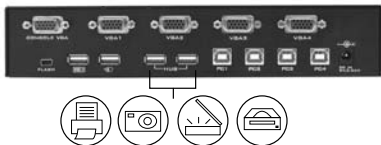


- 3.Connect the VGA connector (HDDB-15 pin) from your monitor to the console VGA port on the back panel of the Switch.



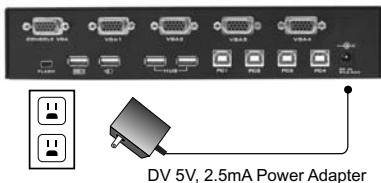
Hardware Installation

4. Connect the USB peripheral devices to the USB hub on the back panel of the KVM Switch.



Powering-Up the KVM Switch

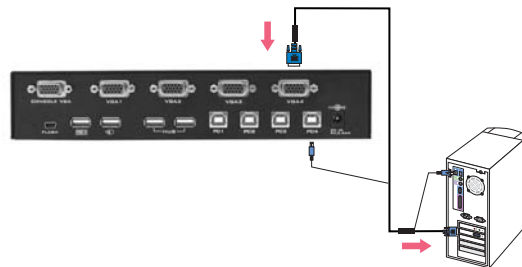
1. Connect the barrel of 5V, 2.5A power adapter to the power jack on the back panel of the Switch.
2. Plug the power adapter cable into an available power outlet.



Hardware Installation

Connecting the Computers

1. Connect the USB (type A) KVM cable from your computer's USB port to the KVM Switch PC port.
2. Connect the VGA (HDDB 15 Pin) cable from your computer to the KVM Switch PC port.



3. Repeat steps 1 and 2 for all computers.
4. Power on your computers. The operating system should recognize your KVM Switch and will automatically install the HID USB driver if necessary.

NOTE : The Switch's default link is the first powered on computer during the installation. For some computers, you must enable USB connector on your system BIOS. Please reference your computer manual or motherboard manual to enable the USB support.

Operation

Powering Up the Systems

Once all cables have been connected and all computers have been powered up, the Switch emulates mouse and keyboard signals on each port to allow your computer booting up normally.

Your NS-231USB/431USB is now ready to use.

Using your computers with the NS-231USB/431USB is easy. The NS-231USB/431USB allows you to access the computers by using two different port selections:

Manual Port Selectors (For PC and Mac)

Hot Key command from the keyboard (For PC only)

Selecting computers via Manual Port Selector

To select computers via the Manual Port Selectors, you can simply press the push button on the front panel to choose the corresponding port. The LED will light GREEN to show the selected port.

Selecting computers via Hot Keys Commands

You also can change ports through the simple keyboard command sequence by using the **[Ctrl]** key and UP and DOWN arrow keys.

- 1.To invoke the Hot key mode press the **[Ctrl]** key twice within two seconds. Note that a signal 'beep' will be given as confirmation.
- 2.Press the UP or DOWN arrow key to switch to the Previous or Next port respectively.

Alternatively you can directly switch the KVM focus to any computer by entering the Port number or Channel number. Each computer is assigned a numeric ID.

For example, if you press **[Ctrl], [Ctrl], [C] "2"** the computer on port 2 will be selected.

Hot Key Commands

Selecting USB Devices connected to the 2 Port USB 2.0 Hub

The built-in 2 port USB (V2.0) hub allows you to connect additional shared peripherals on a "one- computer-at-a-time" basis. When you connect a USB device to the KVM Switch, the device can be accessed through any computer that is connected to the KVM Switch.

Switching USB devices only

You can share any device attached to the built-in USB 2.0 hub from your currently selected computer.

- 1.To invoke the Hot key mode press the **[Ctrl]** key twice within two seconds.
- 2.Press the **[H]** key followed by the corresponding port number (1-4). For example; pressing **[Ctrl],[Ctrl], [H], "1"**, the device connected to the USB hub will access to the first computer .

Switching Computers and the USB devices

You can synchronously switch both the KVM focus and the USB device access to each computer.

- 1.To invoke the Hot key mode, press the **[Ctrl]** key twice within two seconds.
- 2.Press the **[A]** key followed by the corresponding port number (1-4).

For example; pressing **[Ctrl],[Ctrl], [A] "4"**,the computer and the USB device will access to the port 4.

Switching computer only

You can switch the KVM focus only and left the USB devices on the previous active computer. For example, you can print from one computer and switch the KVM focus to another computer simultaneously.

Hot Key Commands

- 1.To invoke the Hot key mode, press the **[Ctrl]** key twice within two seconds.
- 2.Press the **[C]** key followed by the corresponding port number (1-4).

For example; pressing **[Ctrl],[Ctrl], [C] "1"**, switches the KVM focus to the computer on port 1, but the USB device access remains on the port it was.

AutoScan Mode

The Auto Scan feature allows you to monitor the activity of the connected computers at regular 10 second intervals so that you can monitor the computer activity. This time interval cannot be changed.

To invoke Auto Scan Mode press **[Ctrl], [Ctrl], "0"**.

NOTE:

- 1.The interval between these two keys should be no more than 0.5 seconds. Once the scanning begins, it continues until you press any key to exit Auto Scan Mode.
- 2.A Port LED will flash indicating that the connected computer is under Auto Scan mode.

Change The Command Hot Key

The following combinations are available for Hot Keys:

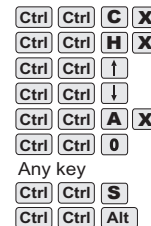
[Ctrl][Ctrl](default), **[Alt][Alt],[Scroll Lock][Scroll Lock],[Shift][Shift]**

1. Press the original command key twice within two seconds
2. Press the new command Hot key.

For example; **[Ctrl] + [Ctrl] + [Alt]**.Now the Hot Key will be changed to Alt

Hot Key Commands

- Switch to PC "X"
- Switch to USB Hub device only
- Previous active PC
- Next active PC
- Switch both PC and USB Hub device
- AutoScan mode
- Stop AutoScan
- Turn On/Off buzzer confirmation
- Switch the Hot Key



X = 1,2,3,4)

(C=Channel)

(H=USB Hub)

(A=Combined PC and Hub)

NOTE: After switching ports, there will be a delay of up to 1-2 seconds before the video displays. This is normal to refresh the rate of the video signal.

Flash-Upgrade

With internet flash-upgrade capability, you can update your KVM Switch with the upgraded firmware via a parallel connection.

To update the firmware, you will need the following items:

- 1.A separate computer running Windows 95, 98, ME, or XP. This computer must not be connected your KVM switch.
2. An available COM port on the computer.
3. A custom flash cable. (Mini Din 8 pin to DB 9 pin)

Troubleshooting**Video****I am getting a black screen on my monitor.**

- ◆ Check that all video cables are connected properly.
- ◆ Connect your monitor directly to the computer to verify that your monitor is function properly.
- ◆ Take your computer out of standby mode and restart it again.

I am getting ghosting, shadowing, or fuzzy images on my monitor.

- ◆ Check that all video cables are connected properly.
- ◆ Check that the monitor you are using supports the resolution and refresh-rate setting on your computer.
- ◆ Check that the graphics card you are using supports the resolution and refresh-rate setting on your computer.
- ◆ Connect the monitor directly into the computer you are having trouble with to see if the problem still appears.

Keyboard**Computer does not detect my keyboard and I get a keyboard error reported when booting up.**

- ◆ Check that the keyboard cable between the Switch and the computer is connected properly. Tighten any loose connections.
- ◆ Try another keyboard.
- ◆ If you are using the keyboard software that was included with your keyboard, uninstall it and install the standard Microsoft keyboard driver.

Troubleshooting**Mouse****The Mouse is lost when I switch to a different channel.**

- ◆ Check that the mouse you are using is connected properly to the console port of the Switch.
- ◆ If you are using a mouse driver that was included with your mouse, uninstall it and install the standard Microsoft mouse driver.
- ◆ Disconnect and reconnect the mouse cable with which you are experiencing problems with to re-synchronize the mouse connection.
- ◆ Connect the mouse directly to the computer with which you are experiencing mouse problems.
- ◆ Allow up to one minute following the computer's waking from standby mode for mouse function to return.
- ◆ Deactivate power management schemes on the PC with which you are experiencing problems.
- ◆ Try another mouse.

Mouse is not detected at booting up

- ◆ Check the cables and make sure that they are inserted properly.

The computer boots up fine but the mouse does not work.

- ◆ Make sure the mouse is plugged-in properly.
- ◆ Make sure the mouse works when directly plugged into the computer. Rebooting may be necessary when trying this.
- ◆ Try a different mouse.

Troubleshooting

When I switch from one port to another, mouse movement is completely erratic.

- ◆ Make sure you do not have more than one mouse driver installed.
- ◆ Make sure the driver is either for a standard PS/2 mouse or for a Microsoft compatible PS/2 mouse.
- ◆ Make sure you do not have any mouse drivers loaded in your CONFIG.SYS or AUTOEXEC.BAT files.
- ◆ Avoid moving the mouse or pressing the mouse button when switching port on the switch.
- ◆ You can reset the mouse and resume proper mouse movement simply by unplugging the mouse from the Switch and allow 2-3 seconds before replugging.

General

My computer does not boot up when connected to the Switch, but works fine when I connect the keyboard, monitor, and mouse directly to it.

- ◆ Make sure that the keyboard and mouse cables are connected tightly between the Switch and the computer.
- ◆ Check that the keyboard and mouse cables are not crossed.
- ◆ Make sure the connectors are plugged into the correct ports.

FCC Certifications

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation distance between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different than that of which the receiver is connected to.
- Consult the dealer or an experienced radio/TV technician for help.
- Shielded interface cables must be used in order to comply with emission limits.
- You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.
- This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and(2)This device must accept any interference received, including interference that may cause undesired operation.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

VCCI Warning

注意

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づく第一種情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Limited Warranty

NEWSTAR offers limited warranty for its product only to the person or entity who originally purchased the product from NEWSTAR or its authorized reseller or distributor.

Limited Hardware Warranty:

NEWSTAR warrants that the hardware portion of the NEWSTAR products described below (Hardware) will be free from material defects in workmanship and materials from the date of original retail purchase of the Hardware, for the period set forth below applicable to the product type (Warranty Period) if the Hardware is used and serviced in accordance with applicable documentation; provided that a completed Registration Card is returned to an Authorized NEWSTAR Service Office within ninety (90) days after the date of original retail purchase of the Hardware. If a completed Registration Card is not received by an authorized NEWSTAR Service Office within such ninety (90) period, then the Warranty Period shall be ninety (90) days from the date of purchase.

Product Type	Warranty Period
Product (excluding power supplies and fans)	Three (3) Years
Power Supplies and Fans	One (1) Year
Spare parts and spare kits	Ninety (90) days

NEWSTAR's sole obligation shall be to repair or replace the defective Hardware at no charge to the original owner. Such repair or replacement will be rendered by NEWSTAR at an Authorized NEWSTAR Service Office. The replacement Hardware need not be new or of an identical make, model or part; NEWSTAR may in its discretion may replace the defective Hardware (or any part thereof) with any reconditioned product that NEWSTAR reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. The Warranty Period shall extend for an additional ninety (90) days after any repaired or replaced Hardware is delivered. If a material defect is incapable of correction, or if NEWSTAR determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware

will be refunded by NEWSTAR upon return to NEWSTAR of the defective Hardware.

All Hardware (or part thereof) that is replaced by NEWSTAR, or for which the you specific legal rights, and you may also have other rights that vary from state to state.

Governing Law:

This Limited Warranty shall be governed by the Haarlem, city of The Netherlands. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This limited warranty provides specific legal rights and the product owner may also have other rights which vary from state to state.

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FAX: +31 (0) 23 547 88 89

-Registration Card

Print, type or use block letters.

Your name: Mr./Ms. _____

Organization: _____ Dept. _____

Your title at organization: _____

Telephone: _____

Fax: _____

Organization's full address: _____

Country: _____

Date of purchase (Month/Day/Year): _____

Product Model	Product Serial Number	* Product installed in type of Computer (E.g. Compaq 486)	* Product installed Incomputer seria

(* Applies to adapters only)

Product was purchased from:

Reseller's name: _____

Telephone: _____ Fax: _____

Reseller's full address: _____

Answers to the following questions help us to support your product:

1. Where and how will the product primarily be used?

Home Office Travel Company Business Home

2. How many employees work at installation site?

1 employee 2-9 10-49 50-99 100-499 500-999 1000 or more

3. What network protocol(s) does your organization use ?

XNS/IPX TCP/IP DECnet Others _____

4. What network operating system(s) does your organization use ?

NEWSTAR LANsmart Novell NetWare NetWare Lite SCO Unix/Xenix PC NFS 3Com

3+Open Banyan Vines DECnet Pathwork ☐ Windows NT ☐ Windows NTAS

☐ Windows '95 Others _____

5. What network management program does your organization use ?

☐ D-View ☐ HP OpenView/Windows ☐ HP OpenView/Unix ☐ SunNet Manager

☐ Novell ☐ NMS ☐ NetView 6000 ☐ Others _____

6. What network medium/media does your organization use ?

☐ Fiber-optics ☐ Thick coax Ethernet ☐ Thin coax Ethernet ☐ 10BASE-T UTP/STP

☐ 100BASE-TX ☐ 100BASE-T4 ☐ 100VGAnyLAN ☐ Others _____

7. What applications are used on your network?

☐ Desktop publishing ☐ Spreadsheet ☐ Word processing ☐ CAD/CAM

☐ Database management ☐ Accounting ☐ Others _____

8. What category best describes your company?

☐ Aerospace ☐ Engineering ☐ Education ☐ Finance ☐ Hospital ☐ Legal

☐ Insurance/Real ☐ Estate ☐ Manufacturing ☐ Retail/Chainstore/Wholesale

☐ Government ☐ Transportation/Utilities/Communication ☐ VAR

☐ System house/company ☐ Other _____

9. Would you recommend your NEWSTAR product to a friend?

☐ Yes ☐ No ☐ Don't know yet

10. Your comments on this product?